Amendments to the Specification

Please add the following paragraph before the first paragraph on page 1:

RELATED APPLICATIONS

This application is a National Stage filing under 35 U.S.C. §371 of International Application No. PCT/JP2003/016130, filed on December 16, 2003, which claims the benefit under 37 U.S.C. 365(b) of Japanese Application No. JP2002/366489, filed December 18, 2002.

Please replace the title with the following new title:

PROCESSING CALL REQUESTS WITH RESPECT TO OBJECTS

Please replace the Abstract with the following new Abstract:

Provided are a method, system, and program for processing call requests with respect to objects. A call request is received with respect to an object. Access authority for the object is require. An access authority set is read for execution of the call request with respect to the object. A determination is made as to whether the access authority is contained in the access authority set. A storage section storing execution results for a previous execution of the object is searched prior to executing the call request and in response to determining that the access authority is contained in the access authority set.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-20. (Canceled)

21. A system for providing services, comprising:

a computer;

a storage section storing execution results for a previous execution of objects; code executed by the computer to perform operations, the operations comprising:

receiving a call request with respect to an object and a user identifier;

comparing access authority for the user identifier and an access authority set for methods that may be called with respect to the object; and

transmitting execution results for the previous execution of the object prior to executing the call request with respect to the object in response to determining that the storage section stores the execution results for the object subject to the call request.

22. The system of claim 21, wherein the call request is received over a network, wherein the execution results are transmitted over the network, wherein the call request with respect to the object comprises a request for Web services.

23. The system of claim 21, further comprising:

searching the storage section for execution results for the object subject to the call request in response to determining that the access authority for the user identifier is contained in the access authority set.

24. The system of claim 21, further comprising:

an object execution component executed by the computer, wherein if the storage section does not contain execution results for the object subject to the call request, then the call request is transmitted to the object execution component to execute the call request with respect to the object.

25. The system of claim 24, wherein the computer includes an edge server that performs the operations of receiving the call request and comparing the access authority for the user identifier, and wherein an application server implements the object execution component.

26. A system for providing services, comprising:

a computer;

a storage section storing execution results for a previous execution of objects;

components executed by the computer to perform operations, comprising:

an object analyzer generating an access authority sets for methods that may be called;

an object executor for executing a call request from a user with respect to an object; and

a cache mechanism configured to store execution results for the previous execution of the object subject to the call request and to use the access authority set to determine whether a user issuing the call request has authority to access, from the storage section, the previous execution of the object subject to the call request.

27. The system of claim 26, wherein the cache mechanism further includes:

a request manager; and

an access controller for controlling a search for execution results for one previous execution of the object stored in the storage section to return the previous execution of the object in response to the call request.

28. The system of claim 27, wherein the access controller compares an access authority for the user initiating the call request and the access authority set to perform access control; and wherein the request manager passes the object call request to the object executor to control execution of the call request with respect to the object in response to the access controller determining that the user initiating the call request has access authority.

29. The system of claim 26, wherein the object analyzer is further executed to perform:

acquiring a method which may be called by the object;

acquiring access authority corresponding to the method; and

generating the access authority set from access authority for all methods which may be called by the object.

30. The system of claim 26, wherein the cache mechanism comprises an edge server and the object analyzer comprises an application server.

31. A method, comprising:

receiving a call request with respect to an object;

acquiring access authority for the object;

reading an access authority set for execution of the call request with respect to the object;

determining whether the access authority is contained in the access authority set; and

searching a storage section storing execution results for a previous execution of the object prior to executing the call request and in response to determining that the access authority is contained in the access authority set.

32. The method of claim 31, wherein the call request is received over a network, and wherein the execution results are transmitted over the network and wherein the call request with respect to the object comprises a request for Web services.

33. The method of claim 31, further comprising:

transmitting the execution results for the previous execution of the object prior to executing the call request with respect to the object in response to determining that the storage section stores the execution results for the previous execution of the object subject to the call request.

34. The method of claim 31, further comprising:

passing the call request to an object executor in response to determining that the storage section does not store execution results for the previous execution of the object subject to the call request.

35. A computer readable medium including instructions that when executed cause a computer to interact with a storage section and to perform operations comprising:

receiving a call request with respect to an object;

acquiring access authority for the object;

reading an access authority set for execution of the object;

determining whether the access authority is contained in the access authority set; and

searching the storage section which stores execution results for a previous execution of the object in response to determining that the access authority is contained in the access authority set prior to executing the call request with respect to the object.

36. The computer readable medium of claim 35, wherein the call request is received over a network, and wherein the operations further comprise:

transmitting the execution results over the network and wherein the call request with respect to the object comprises a request for Web services.

37. The computer readable medium of claim 35, wherein the operations further comprise:

transmitting the execution results in response to determining that the storage section stores execution results for a previous execution of the object.

38. The program according to claim 35, wherein the operations further comprise: passing the call request with respect to the object an object executor in response to determining that the storage section does not store execution results for the previous execution of the object.

39. A computer-readable storage medium which stores a program for causing a computer system to function as a server unit for providing Web services through a network, said program causes said computer system to perform the steps of:

receiving and storing an object call request;

acquiring access authority for a request object from memory;

reading an access authority set for execution of said request object from the memory;

determining whether said access authority is contained in said access authority set; and

if said access authority is contained in said access authority set, prior to executing said application, searching a storage section which stores execution results for a previous object.